APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/961,078	09/21/2001	Joel E. Cordsmeyer	BELL-0116/01114	5101

23377 7590 11/22/2005	EXAMINER
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ART UNIT	PAPER NUMBER
2667	

DATE MAILED: 11/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/961,078	CORDSMEYER ET AL.
	Examiner	Art Unit	
	Christopher P Grey	2667	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _28 July 2005_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-27_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-27_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTION

Response to Amendment

1.   Responsive to the amendment filed on July 28, 2005, the amendments to

claims 1, 16, 18, 25, 26, 27 have been entered as requested.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

2.   Claims 1-27 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Barker et al. (US 6363421) in view of Chisholm (US 6697970).

<u>Claim 1, 16, 27</u>   Barker et al. ('Barker' hereinafter) discloses a method for

remote management of telecommunications network elements.

Barker discloses a management computer connected to an element

management server. (Col 1 lines 25-35). Barker also discloses an application

processor (intermediary) for interfacing the element management server and the

network element (Col 1 lines 55-65).

Barker discloses a remote management computer issuing multiple

commands to the element management server, and furthermore, the element

management server responding to these commands (Col 1 line 66- Col 2 line

17). Barker discloses detailed status information being maintained for the network element (Col 4 lines 27-36 and Col 5 lines 17-20).

Barker does not specifically disclose gathering status information for the fabric structure. However, Chisholm discloses a network element switch (Col 1 lines 46-59) and ant he network element being a multiplexing element (Col 4 lines 45-54). Chisholm also discloses maintaining an inventory table for a network element, and the system manager having summarized information concerning the identity and status of the network element and the element management server (Col 5 lines 56-66).

Chishom discloses requesting information from an element manager (Col 5 lines 56-67). Chisholm also discloses requesting information from a network element (switch fabric) as disclosed in Col 5 lines 5-14 and see fig 1 and 2.

It would have been obvious to one of the ordinary skill in the art at the time of the invention that the network element as disclosed by Barker is equivalent to any network element within the art, particularly the network switching multiplexing element as disclosed by Chisholm. Furthermore, the network element of Barker may be modified to employ polling directly to the network element as disclosed by Chisholm. The motivation for this modification is to retrieve information about the network element in order to obtain information of interest to the NMS (Col 5 lines 15-19).

Claim 2, 18   Barker discloses a TCP/IP connection between an element management system client and an element management system server, and

also a TCP/IP connection between an application processor and an element

management system server (Fig 3 element 32 and 28, and elements 32 and 80).

Claim 3, 19   Barker discloses the TCP/IP session as disclosed in the rejection of

claim 2 and 18. Barker also discloses the use of terminal emulation (Col 26 lines

60-Col 27 line 4).

Claim 4, 20   Barker discloses the use of terminal emulation as disclosed in the

rejection of claim 3. Barker discloses establishing a telnet session (Col 26 lines

60-Col 27 line 4).

Claim 5, 21   Barker discloses a TCP/IP connection as disclosed in the rejection

of claim 2 and 18. Barker discloses remotely managing a network element

through a special communication link (Col 1 lines 25-36). It would have been

obvious to one of the ordinary skill in the art that links connect ports, where a

special link would require a special port, where a special port may be specified

as being an unassigned port.

Claim 6   Barker discloses each client application registering with the element

manager, where registering comprises providing identification and a port

(address) of the client host (Col 30 lines 45-63).

Claim 7   The combined inventions of Barker and Chisholm disclose

gathering a network address in the form of an identifier as disclosed in the

rejection of claim 6, where it would have been obvious to one of the ordinary skill

in the art at the time of the invention to equivocate any identifier as a cilli code.

Claim 8, 23   The rejection of claim 1 discloses issuing a first and second

interface retrieve commands. Furthermore, Barker discloses TCP/IP protocols

(Col 4 lines 6-17), where it would have been obvious to one of the ordinary skill in the art at the time of the invention that transport protocols are often applied as protocol independent.

Claim 9, 24   The rejection of claims 8 and 24 disclose issuing the protocol independent interface retrieve commands. Furthermore, Barker discloses transport protocols (Col 4 lines 6-17), which are applied on a transport level.

Claim 12   Barker discloses a network element status table for storing status information (Fig 3 element 96).

Claim 13   Barker discloses a detailed status application that displays (report) static configuration data (Col 5 lines 17-20).

Claim 14   Barker discloses detailed status information being maintained for the network element (Col 4 lines 27-36 and Col 5 lines 17-20) and furthermore the rejection of claim 1 discloses gathering status information for the switch fabric. However, Barker does not disclose repeating gathering status information for the switch fabric for each remaining multiplexing element.

Chisholm discloses a plurality of network elements (Fig 1 element 14 A-C) being managed by an element management server (element 18 in Fig 1). Chisholm also discloses a system manager managing status information of all of the network elements (Col 5 lines 56-67). It would have been obvious to one of the ordinary skill in the art at the time of the invention to combine the management of a network from a remote location as disclosed by Barker, with the management of a number of network elements as disclosed by Chisholm, where gathering status information would have to be repeated for each network

element in order to maintain the status information of all of the elements. The motivation for this modification is to be able to remotely manage/maintain network elements.

Claim 15   Barker discloses a management computer connected to an element management server (Col 1 lines 25-35). The management computer retrieves status information obtained from the element management server (Col 5 lines 17-20). Barker does not specifically disclose repeating gathering status information for each remaining element manager.

Chisholm discloses a plurality of network elements (Fig 1 element 14 A-C) being managed by an element management server (element 18 in Fig 1). Chisholm also discloses a system manager managing status information of all of the network elements (Col 5 lines 56-67). It would have been obvious to one of the ordinary skill in the art at the time of the invention that each network element could be assigned their own manager, and furthermore it would have been obvious to modify the remote management computer as disclosed by Barker to manage the element management servers as discussed above. The motivation for this modification is to be able to remotely manage/maintain network elements.

Claim 16   Barker discloses a management computer connected to an element management server. (Col 1 lines 25-35). Barker also discloses an application processor (intermediary) for interfacing the element management server and the network element (Col 1 lines 55-65).

Barker discloses the network element being connected to a management agent application for performing maintenance. Barker also discloses command requests being issued and command acknowledgements (Col 1 lines 55-65).

Barker discloses a remote management computer issuing multiple commands to the element management server, and furthermore, the element management server responding to these commands (Col 1 line 66- Col 2 line 17). Barker discloses detailed status information being maintained for the network element (Col 4 lines 27-36 and Col 5 lines 17-20).

Barker does not specifically disclose the network element being a multiplexing element. However, Chisholm discloses a management system wherein any network element may be considered a multiplexing element (Col 4 lines 45-54).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to specify the network element as disclosed by Barker with a multiplexing element as disclosed by Chisholm. The motivation for this specification is to provide switching functions and transport network functions (Col 4 lines 45-54).

Claim 17   Barker discloses a remote management computer running a management application (software) as disclosed in Col 2 lines 18-33.

3.   Claims 10, 11, 25 and 26 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Barker et al. (US 6363421) in view of Chisholm (US 6697970)

in further view of Teixeira (US 2002/0101864)

<u>Claims 10, 11, 25 and 26</u>   The combined teachings of Barker and Chisholm do

not specifically disclose determining the number of cross connects in the

multiplexing element.

        Teixeira discloses a network management system connected to a cross

connect switch, where the NMS can determine the status and configuration of the

cross connects over a network (page 2 paragraph 0029).

        It would have been obvious to one of the ordinary skill in the art at the time

of the invention to modify the NMS within the combined teachings of Barker and

Chisholm, to use the cross connect status and configuration information as

disclosed by Teixera within the inventory scheme. The motivation for this

modification is to achieve control of the switching element from a remote site

(page 2 paragraph 0029).

Response to Arguments

3.   Applicant's arguments with respect to claims 1-27 have been considered

but are moot in view of the new ground(s) of rejection.

(a)   The applicant argued that the cited art does not disclose the applicant's

claimed, "maintaining an accurate inventory of the logical number of cross-

connects"

        The updated rejection now properly rejects inventorying the status of

crossconnects from a remote site as discussed within the rejection of claims 10,

11, 25 and 26.

(b)   The applicant argued that the network element described within the

invention of Barker is not a network switch.

        The examiner maintains that the same limitation within it broadest term is

already disclosed within the updated rejection of claim 1, wherein Barker

discloses a network element being remotely managed, where it would have been

obvious to one of the ordinary skill in the art at the time of the invention that a

network switch is equivalent to a network element, where a network element is

broadly interpreted as any element within a network.

(c)   The applicant argued that the examiner incorrectly asserted the opinion

that the combination of the element manager server and network element

compose the switch fabric.

The examiner has removed this assertion , however, the network element

is equivalent to a switch (see Chisholm Col 1 lines 45-59), where a switch is an

element within a network as described previously.

Conclusion

4.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

(a)   Takeyama et al. (US 20020018478) discloses **managing status**

information of a local apparatus from a remote terminal apparatus.

(b)   Nagahama (US 20030012142) discloses an invention where **an NMS**

monitors a number of network elements and the cross connects at each
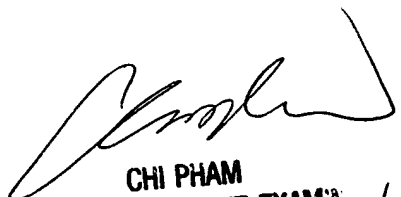
network element.

5.   Any inquiry concerning this communication or earlier communications from

the examiner should be directed to Christopher P. Grey whose telephone number

is (571)272-3160. The examiner can normally be reached on 6:30-3:00.

        If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, Chi Pham can be reached on (571)272-3179. The fax

phone number for the organization where this application or proceeding is

assigned is 571-273-8300.

        Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information

for published applications may be obtained from either Private PAIR or Public

PAIR. Status information for unpublished applications is available through

Private PAIR only. For more information about the PAIR system, see http://pair-

direct.uspto.gov. Should you have questions on access to the Private PAIR

system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-

free).

Christopher Grey
Examiner
Art Unit 2667

11/17/05

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